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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ahmed H. Tewfik et al.
Title: GENERATING UWB-OFDM SIGNAL USING SIGMA-DELTA MODULATOR

Docket No.: 600.583US1
Filed: October 24, 2003
Examiner: Unknown

Serial No.: 10/693,651
Due Date: N/A
Group Art Unit: 2661

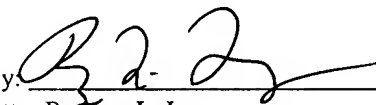
MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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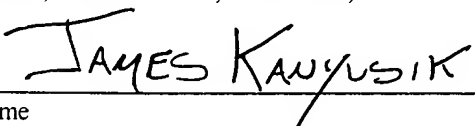
- ☒ A return postcard.
- ☒ A Communication Concerning Related Applications (1 pgs.).
- ☒ An Information Disclosure Statement (2 pgs.), Form 1449 (1 pgs), and copies of 11 cited documents.

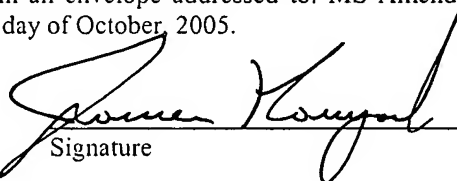
If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
Customer Number 21186

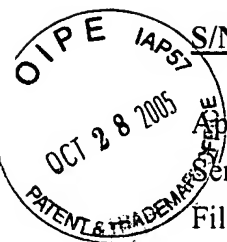
By: 
Atty: Rodney L. Lacy
Reg. No. 41,136

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Name


Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
(GENERAL)



S/N 10/693,651

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Ahmed H. Tewfik et al.

Examiner: Unknown

Serial No.: 10/693,651

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Docket: 600.583US1

Title: GENERATING UWB-OFDM SIGNAL USING SIGMA-DELTA MODULATOR

COMMUNICATION CONCERNING RELATED APPLICATIONS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related applications in the above-identified patent application:

| <u>Serial/Patent No.</u> | <u>Filing Date</u> | <u>Attorney Docket</u> | <u>Title</u> |
|--------------------------|--------------------|------------------------|---|
| 10/191,769 | July 8, 2002 | 600.569US1 | HIGH BIT RATE ULTRA-WIDEBAND OFDM |
| 10/973,945 | October 25, 2004 | 600.608US1 | DIGITAL RECEIVER STRUCTURES FOR UWB-OFDM SIGNAL USING SIGMA-DELTA MODULATOR |

Respectfully submitted,

AHMED H. TEWFIK ET AL.

By Applicants' Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6954

Date October 26, 2005 By Rodney L. Lacy
Rodney L. Lacy
Reg. No. 41,136

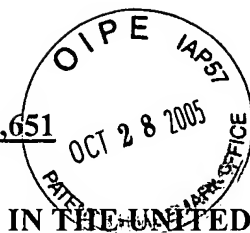
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JAMES KANYUSIK
Name

[Signature]
Signature

S/N 10/693,651

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|-------------|--|-----------------|------------|
| Applicant: | Ahmed H. Tewfik et al. | Examiner: | Unknown |
| Serial No.: | 10/693,651 | Group Art Unit: | 2661 |
| Filed: | October 24, 2003 | Docket: | 600.583US1 |
| Title: | GENERATING UWB-OFDM SIGNAL USING SIGMA-DELTA MODULATOR | | |

INFORMATION DISCLOSURE STATEMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicant respectfully requests that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicant requests that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicant with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

Serial No : 10/693,651

Filing Date: October 24, 2003

Title: GENERATING UWB-OFDM SIGNAL USING SIGMA-DELTA MODULATOR

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Dkt: 600.583US1

Pursuant to 37 C.F.R. 1.98(a)(2), Applicant believes that copies of cited U.S. Patents and Published Applications are no longer required to be provided to the Office. Notification of this change was provided in the United States Patent and Trademark Office OG Notices dated October 12, 2004. Thus, Applicant has not included copies of any U.S. Patents or Published Applications cited with this submission. Should the Office require copies to be provided, Applicant respectfully requests that notice of such requirement be directed to Applicant's below-signed representative. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicant's Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

AHMED H. TEWFIK ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6954

Date October 26, 2005

By Rodney L. Lacy
Rodney L. Lacy
Reg. No. 41,136

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JAMES KAUYUSIK
Name

James Kauyusik
Signature



Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

| | |
|-----------------------------|------------------|
| Application Number | 10/693,651 |
| Filing Date | October 24, 2003 |
| First Named Inventor | Tewfik, Ahmed |
| Group Art Unit | 2661 |
| Examiner Name | Unknown |

Sheet 1 of 2

Attorney Docket No: 600.583US1

US PATENT DOCUMENTS

| Examiner Initial * | USP Document Number | Publication Date | Name of Patentee or Applicant of cited Document | Filing Date If Appropriate |
|--------------------|---------------------|------------------|---|----------------------------|
| | US-2004/0005016 A1 | 01/08/2004 | Tewfik, A. | 07/08/2002 |
| | US-4,116,103 | 09/26/1978 | Deutsch, R. | 07/12/1976 |
| | US-5,677,927 | 10/14/1997 | Fullerton, L. W., et al. | 09/20/1994 |
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| | US-6,331,997 | 12/18/2001 | Li, D. | 02/10/2000 |
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| | US-6,888,887 | 05/03/2005 | Shattil, S. J. | 09/10/1999 |

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|--------------------|----------------------|---|----------------|
| | | FOERSTER, J. R., "The Effects of Multipath Interference on the Performance of UWB Systems in an Indoor Wireless Channel", <u>53rd IEEE Vehicle Technology Conference (VTC 2001 Spring)</u> , Vol. 2, 1176-1180 | |
| | | FONTANA, R. J., et al., "An Ultra Wideband Communications Link for Unmanned Vehicle Applications", <u>Association for Unmanned Vehicle Systems International (AUVSI '97, Baltimore, June 3-6, 1997)</u> , 6 Pages | |
| | | GERAKOULIS, DIAKOUMIS, et al., "An Interference Suppressing OFDM System for Ultra Wide Bandwidth Radio Channels", <u>Proceedings of the IEEE Conference on Ultra Wideband Systems and Technologies</u> , (2002),259-264 | |
| | | GERAKOULIS, DIAKOUMIS, et al., "Link Performance of an Ultra Wide Bandwidth Wireless In-Home Network", <u>Proceedings of the Seventh International Symposium on Computers and Communications</u> , (July 1, 2002), 699-704 | |
| | | GUPTA, R., et al., "Capacity of Ultra-Wideband OFDM", <u>57th IEEE Semiannual Vehicle Technology Conference (VTC 2003 Spring)</u> , Vol. 2, 1420-1424 | |
| | | SABERINIA, E., et al., "Generating UWB-OFDM Signal Using Sigma-Delta Modulator", <u>57th IEEE Semiannual Vehicular Conference (VTC 2003 Spring)</u> , Vol. 2, 1425-1429 | |
| | | SABERINIA, E., et al., "N-Tone Sigma-Delta UWB-OFDM Transmitter and Receiver", <u>IEEE International Conference on Acoustics, Speech, and Signal Processing 2003 (ICASSP '03)</u> , Vol. 4, IV-129-IV-132 | |
| | | SABERINIA, E., et al., "Pilot Assisted Multi-User UWB Communications", <u>57th IEEE Semiannual Vehicle Technical Conference (VTC 2003 Spring)</u> , 5 Pages | |
| | | SABERINIA, E., et al., "Synchronous UWB-OFDM", <u>IEEE International Symposium on Advances in Wireless Communications 2002 (ISWC '02)</u> , 41-42 | |
| | | TEWFIK, A. H., et al., "High Bit Rate Ultra-Wideband OFDM", <u>Proceedings of the IEEE Global Telecommunications Conference</u> , Vol. 1, Taipei, Taiwan,(11/17/2002),2260-2264 | |

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

Application Number 10/693,651

Filing Date October 24, 2003

First Named Inventor Tewfik, Ahmed

Group Art Unit 2661

Examiner Name Unknown

Sheet 2 of 2

Attorney Docket No: 600.583US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|-----------------------|--------------------------|---|----------------|
| | | WIN, M. Z., et al., "Ultra-Wide Bandwidth Time-Hopping Spread-Spectrum Impulse Radio for Wireless Multiple-Access Communications", <u>IEEE Transactions on Communications</u> , 48(4), (2000), 679-691 | |

EXAMINER**DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional) ² Applicant is to place a check mark here if English language Translation is attached